

[1] EC-TYPE EXAMINATION CERTIFICATE

**[2] Equipment or Protected System Intended for use
in Potentially explosive atmospheres
Directive 94/9/EC**

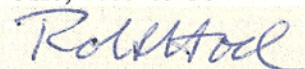
- [3] EC-Type Examination Certificate Number:** Nemko 03ATEX1269
- [4] Equipment or Protective System:** Junction box
- [5] Applicant:** Shimada Electric Co., Ltd.
[6] Address: 2-29-6, Nakaikagami 2-chome
Ota-ku, Tokyo 146-0081
JAPAN
- [5] Manufacturer:** Shimada Electric Co., Ltd.
[6] Address: Sano Factory
946-1 Akasaka-cho
Sano-City, Tochigi 327-0004
JAPAN
- [7] This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.**
- [8] Nemko AS, notified body number 0470 in accordance with Article 9 of Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.**
- The examination and test results are recorded in confidential report no. 200311139
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:**
- CENELEC EN 50014: 1997 + A1: 1999 + A2: 1999
CENELEC EN 50019: 2000
CENELEC EN 50281-1-1: 1998 + A1: 2002
- [10] If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.**
- [11] This EC-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.**
- [12] The marking of the equipment or protective system shall include the following:**



II 2 GD

EEx e II T6

Oslo, 2003-05-30



Rolf Hoel
Certification Department

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[13] Schedule**[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 03ATEX1269****[15] Description of Equipment or Protective System**

Junction box of aluminium for certified terminals listed in descriptive documents. Connection to the earth terminal must be done by the means of a cable-lug connection. A certified EEx e cable gland or conduit with ingress protection code IP66 must be used when installed.

Type Designation

ASTH-10
ASTH-20
ASTH-30
ASTH-60
ASTH-70
ASTH-90

Technical Data

U_{max}= 750V

Ingress Protection Code

IP66 according to EN 60529: 1991.

Type ASTH-10 mounted horizontally. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 13 | 30 | | | | | |
| 16 | 17 | 20 | | | | |
| 20 | | 13 | | | | |
| 25 | | | 17 | | | |
| 26 | | | 15 | | | |
| 35 | | | | 14 | | |
| 37 | | | | 12 | | |
| 39 | | | | | 10 | |
| 57 | | | | | | 6 |
| 63 | | | | | 4 | |
| 100 | | | | | | 2 |

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Type ASTH-10 mounted Vertically. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 13 | 30 | | | | | |
| 14 | | 24 | | | | |
| 16 | 17 | | | | | |
| 20 | | 13 | | | | |
| 23 | | | 20 | | | |
| 25 | | | 17 | | | |
| 32 | | | | 16 | | |
| 35 | | | | 14 | | |
| 36 | | | | | 12 | |
| 63 | | | | | 4 | |
| 70 | | | | | | 4 |
| 100 | | | | | | 2 |

Type ASTH-20 mounted horizontally. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 12 | 45 | | | | | |
| 15 | | 25 | | | | |
| 16 | 25 | | | | | |
| 20 | | 15 | | | | |
| 24 | | | 20 | | | |
| 25 | | | 19 | | | |
| 32 | | | | 17 | | |
| 35 | | | | 15 | | |
| 36 | | | | | 12 | |
| 44 | | | | | | 10 |
| 63 | | | | | 4 | |
| 100 | | | | | | 2 |

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Type ASTH-20 mounted vertically. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 11 | | 45 | | | | |
| 12 | 45 | | | | | |
| 16 | 25 | | | | | |
| 18 | | | 36 | | | |
| 20 | | 15 | | | | |
| 25 | | | 19 | | | |
| 31 | | | | | 16 | |
| 32 | | | | 20 | | |
| 35 | | | | 17 | | |
| 57 | | | | | | 6 |
| 63 | | | | | 4 | |
| 100 | | | | | | 2 |

Type ASTH-30 mounted horizontally. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 10 | 60 | | | | | |
| 14 | | 30 | | | | |
| 16 | 15 | | | | | |
| 20 | | 16 | | | | |
| 21 | | | 25 | | | |
| 25 | | | 19 | | | |
| 32 | | | | 20 | 15 | |
| 35 | | | | 17 | | |
| 40 | | | | | | 12 |
| 63 | | | | | 4 | |
| 100 | | | | | | 2 |

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Type ASTH-30 mounted vertically. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 10 | 60 | 60 | | | | |
| 15 | | | 48 | | | |
| 16 | 15 | | | | | |
| 20 | | 16 | | | | |
| 25 | | | 19 | | | |
| 26 | | | | 30 | | |
| 31 | | | | | 16 | |
| 35 | | | | 17 | | |
| 57 | | | | | | 6 |
| 63 | | | | | 4 | |
| 100 | | | | | | 2 |

Type ASTH-60 mounted horizontally. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 10 | 75 | | | | | |
| 12 | | 45 | | | | |
| 16 | 24 | | | | | |
| 19 | | | 36 | | | |
| 20 | | 17 | | | | |
| 21 | | | | | | |
| 25 | | | 23 | | 24 | |
| 30 | | | | 30 | | |
| 35 | | | | 23 | | |
| 47 | | | | | | 18 |
| 63 | | | | | 4 | |
| 100 | | | | | | 2 |

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Type ASTH-60 mounted vertically. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 9 | | 75 | | | | |
| 10 | 75 | | | | | |
| 15 | | | 60 | | | |
| 16 | 24 | | | | | |
| 20 | | 17 | | | | |
| 25 | | | 23 | | 24 | |
| 26 | | | | 40 | | |
| 35 | | | | 23 | | |
| 63 | | | | | 4 | |
| 81 | | | | | | 6 |
| 100 | | | | | | 4 |

Type ASTH-70 mounted horizontally. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 9 | 90 | | | | | |
| 10 | | 84 | | | | |
| 13 | | | 75 | | | |
| 16 | 16 | | | | 28 | |
| 20 | | 21 | | | | |
| 22 | | | | 60 | | |
| 25 | | | 23 | | | |
| 35 | | | | 25 | | |
| 63 | | | | | 4 | |
| 70 | | | | | | 8 |
| 100 | | | | | | 4 |

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Type ASTH-70 mounted vertically. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 9 | 90 | | | | | |
| 10 | | 84 | | | | |
| 13 | | | 75 | | | |
| 16 | 16 | | | | 28 | |
| 20 | | 21 | | | | |
| 22 | | | | | | |
| 25 | | | 23 | | | |
| 26 | | | | 60 | | |
| 35 | | | | 25 | | |
| 63 | | | | | 4 | |
| 70 | | | | | | 8 |
| 100 | | | | | | 4 |

Type ASTH-90 mounted horizontally. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 8 | 180 | | | | | |
| 10 | | 136 | | | | |
| 11 | | | 112 | | | |
| 16 | 35 | | | | | |
| 20 | | 41 | | 66 | | |
| 21 | | | | | 54 | |
| 25 | | | 24 | | | |
| 35 | | | | 22 | | |
| 63 | | | | | 6 | |
| 65 | | | | | | 14 |
| 100 | | | | | | 6 |

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Type ASTH-90 mounted vertically. Maximum number of terminals for conductors size

| Current (A) | 2,5 mm ² | 4 mm ² | 6 mm ² | 10 mm ² | 16 mm ² | 35 mm ² |
|-------------|---------------------|-------------------|-------------------|--------------------|--------------------|--------------------|
| 8 | 180 | | | | | |
| 9 | | 168 | | | | |
| 10 | | | 136 | | | |
| 16 | 35 | | | | | |
| 17 | | | | 84 | | |
| 18 | | | | | 66 | |
| 20 | | 41 | | | | |
| 21 | | | | | | |
| 25 | | | 24 | | | |
| 35 | | | | 22 | | |
| 61 | | | | | | 16 |
| 63 | | | | | 6 | |
| 100 | | | | | | 6 |

[16] Report No. 200311139

Descriptive Documents

| Name/Title | Drawing No. | Rev. | Date | Sheets |
|--|-------------|------|------------|--------|
| Increased Safety Type Junction Box ASTH-10 | BA01460 | 1 | 2003-02-17 | 1 |
| Terminal List ASTH-10 | BA01460-1 | - | 2003-02-27 | 1 |
| Increased Safety Type Junction Box ASTH-20 | BA01461 | 1 | 2003-02-17 | 1 |
| Terminal List ASTH-20 | BA01461-1 | - | 2003-02-27 | 1 |
| Increased Safety Type Junction Box ASTH-30 | BA01462 | 1 | 2003-02-17 | 1 |
| Terminal List ASTH-30 | BA01462-1 | - | 2003-02-27 | 1 |
| Increased Safety Type Junction Box ASTH-60 | BA01463 | 1 | 2003-02-17 | 1 |
| Terminal List ASTH-60 | BA01463-1 | - | 2003-02-27 | 1 |
| Increased Safety Type Junction Box ASTH 70 | BA01464 | 1 | 2003-02-17 | 1 |
| Terminal List ASTH 70 | BA01464-1 | - | 2003-02-27 | 1 |
| Increased Safety Type Junction Box ASTH 90 | BA01465 | 1 | 2003-02-17 | 1 |
| Terminal List ASTH 90 | BA01465-1 | - | 2003-02-27 | 1 |

[17] Special Conditions for Safe Use
None

[18] Essential Health and Safety Requirements
See item 9

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